FOOD PRODUCTION BLUEPRINT

Grow food anywhere. Feed your family. Feed your community.

21 Days	500 sq ft	60 Days	Free
without food = death	feeds one person	seed to harvest (fast crops)	seeds from your food

WHAT'S INSIDE:

1. Emergency Calorie Planning
2. Best Crops to Grow
3. Soil Preparation
4. Planting & Growing Guide
5. Seed Saving
6. Food Preservation
7. Community Food Strategy
8. Quick Reference Card

Before you plant anything, know exactly how much food you need to survive.

Most people dramatically underestimate how much food a person needs per day. Planting a small garden feels productive but will not sustain a family through a crisis. This section gives you exact numbers so you can plan correctly.

DAILY CALORIE REQUIREMENTS

Person Type	Daily Calories	Notes
Adult man (active)	**2,500–3,000**	Hard labor increases to 3,500+
Adult woman (active)	**2,000–2,500**	Pregnancy adds 300–500 calories
Child age 5–12	**1,400–2,000**	Growth demands high calories
Teenager	**2,200–3,000**	Most active period of life
Elderly adult	**1,800–2,200**	Less active but still significant
Minimum survival (adult)	**1,500**	Below this: muscle wasting begins

HOW MUCH SPACE DO YOU NEED?

RULE OF THUMB: 200 square feet (roughly 14×14 ft) of intensive garden per person

This assumes intensive methods. Traditional row planting needs 3–4× more space.
1 acre can feed 2–4 people for a full year with diverse crops.

SPACE NEEDED BY FAMILY SIZE

Family	Space	Approx Size
1 person	**200 sq ft**	14×14 ft
2 people	**400 sq ft**	20×20 ft
4 people	**800 sq ft**	28×28 ft
6 people	**1,200 sq ft**	35×35 ft
10 people	**2,000 sq ft**	45×45 ft

MOST CALORIE-DENSE CROPS

Crop	Cal/lb	Notes
Potatoes	**770 cal/lb**	Easiest calorie crop to grow
Sweet potatoes	**390 cal/lb**	Drought tolerant, high yield
Corn (dried)	**1,600 cal/lb**	Store dried for months
Beans (dried)	**1,500 cal/lb**	Complete protein + calories
Squash/pumpkin	**200 cal/lb**	Large yields, long storage
Sunflower seeds	**2,600 cal/lb**	Small space, very dense
Peanuts	**2,600 cal/lb**	Grows in most climates

CRITICAL:

A 10×10 ft backyard garden produces vegetables but NOT enough calories to survive. You must grow calorie-dense staples — potatoes, beans, corn, and squash — in addition to vegetables. Plan your space around calories first, variety second.

Choose crops that grow fast, produce high yields, and store well.

Not all crops are equal in a survival situation. Focus on crops that produce calories quickly, grow in a wide range of climates, require minimal expertise, and can be stored without refrigeration.

POTATOES

70 days | Easy

Space: 1 sq ft/plant Yield: 10–20 lbs/plant

Most calorie-dense vegetable. Grows in almost any soil. One potato becomes 10–20. Can be stored for months in a cool dark place.

HOW TO GROW:

- Plant sprouted potato pieces 4 inches deep, 12 inches apart.
- Hill soil up around stems as they grow — this creates more potatoes.
- Harvest when tops turn yellow and die back.
- Store unwashed in cool, dark, dry location. Do not refrigerate.

BEANS (Bush/Pole)

55 days | Easy

Space: 4 per sq ft Yield: 1 lb per 10 sq ft

Complete protein when dried. Fixes nitrogen in soil — improves it for next crop. Bush beans need no support. Pole beans need a trellis but produce longer.

HOW TO GROW:

- Plant seeds 1 inch deep, 4 inches apart after last frost.
- Water consistently — beans are sensitive to drought during flowering.
- For drying: leave pods on plant until they rattle, then harvest.
- Dried beans store for 10+ years in airtight containers.

SWEET POTATOES

90 days | Easy

Space: 1 sq ft/plant Yield: 5–10 lbs/plant

Drought tolerant once established. Entire plant is edible — leaves too. High in vitamins A and C. Stores for months without refrigeration.

HOW TO GROW:

- Plant slips (rooted cuttings) 12 inches apart in warm soil.
- Needs warm climate — plant after all frost risk is gone.
- Vines spread widely — give them room or train along ground.
- Cure harvested roots at 85°F for 10 days before long storage.

SQUASH/PUMPKIN

50 days | Easy

Space: 6 sq ft/plant Yield: 10–30 lbs/plant

Enormous yield per plant. Winter squash stores for 6+ months. Seeds are edible and nutritious. Grows on poor soil with minimal care.

HOW TO GROW:

- Plant 3–5 seeds in a mound of soil, thin to 2 strongest plants.
- Needs full sun and consistent water during fruit development.
- Winter varieties: harvest when stem is dry and skin is hard.
- Store whole in cool dry place. Do not store below 50°F.

CORN (Dried/Grain)

100 days | Medium

Space: 1 sq ft/plant Yield: 1–2 lbs dried/plant

Dried corn stores for years. Can be ground into flour. Plant in blocks not rows — needs wind pollination from neighboring plants.

HOW TO GROW:

- Plant in blocks of at least 4×4 plants for pollination.
- Sow 1 inch deep, 12 inches apart in warm soil.
- Leave ears on stalk until husks are fully dry and brown.
- Store dried kernels in airtight containers. Last 10+ years.

KALE/LEAFY GREENS

30 days | Easy

Space: 1 per sq ft Yield: Continuous harvest

Fastest crop — edible in 30 days. Packed with vitamins. Survives frost. Can harvest outer leaves repeatedly for months.

HOW TO GROW:

- Sow seeds 1/4 inch deep, thin to 12 inches apart.
- Harvest outer leaves regularly to encourage continued growth.
- Tolerates frost — flavor actually improves after frost.
- Grows well in partial shade — useful for dense plantings.

Good soil is the difference between a crop that feeds you and one that fails.

You cannot grow enough food in poor soil. The good news: soil can be dramatically improved in one season using materials you already have or can collect for free. This section covers everything from reading your soil to building a no-dig garden.

KNOW YOUR SOIL TYPE

SANDY SOIL

Drains fast, warms quickly. Poor nutrients.

FIX: Add compost and organic matter. Needs frequent watering.

CLAY SOIL

Holds water, nutrient-rich but compacts easily.

FIX: Add compost and grit. Never work when wet — will set like concrete.

LOAMY SOIL

Ideal mix of sand, silt, clay. Best for crops.

FIX: Maintain by adding compost annually. You are fortunate.

CHALKY SOIL

Alkaline, drains fast, low nutrients.

FIX: Add acidic compost, avoid brassicas. Good for beans and squash.

PEATY SOIL

Acidic, holds water, good organic content.

FIX: Add lime to raise pH. Excellent for potatoes and root crops.

SIMPLE SOIL TEST (No equipment)

Squeeze test

Grab a handful of moist soil and squeeze. Sandy: falls apart. Clay: holds shape and smears. Loam: holds shape briefly then crumbles.

Jar test

Fill jar 1/3 with soil, add water, shake hard, let sit 24hrs. Sand settles bottom, silt middle, clay stays cloudy on top.

Worm count

Dig a 12-inch cube of soil. Count worms. 10+ worms = healthy soil. Less than 5 = soil needs organic matter urgently.

NO-DIG RAISED BED METHOD

STEP 1 — Choose Your Location

Full sun — minimum 6 hours daily.
Near water source.
Level or gently sloping ground.
Minimum 4×4 ft for useful production.

STEP 2 — Smother Existing Weeds

Lay cardboard or newspaper 4 layers thick.
Overlap edges by 6 inches.
Wet it thoroughly.
This kills grass and weeds without digging.

STEP 3 — Add Compost Layer

Dump 4–6 inches of compost or aged manure on top.
This IS your planting medium.
No need to dig or mix with soil below.
Plant directly into the compost layer.

STEP 4 — Optional: Frame

Timber, cinder blocks, or logs as border.
Keeps compost contained and edges neat.
Allows you to raise bed height each year.
Not required — just helpful.

STEP 5 — Plant and Mulch

Plant seedlings or sow seeds in the compost.
Cover soil with 2 inches of straw or wood chips.
Mulch retains moisture and prevents weeds.
Water well and maintain moisture.

QUICK COMPOST GUIDE

GREENS (Nitrogen): Kitchen scraps, grass, fresh leaves

BROWNS (Carbon): Cardboard, straw, dry leaves, wood chips

RATIO: 2 parts browns to 1 part greens by volume

READY IN: 2–3 months (hot pile) or 6–12 months (cold pile)

Timing, spacing, and care are the difference between success and failure.

Most crop failures come from planting at the wrong time, planting too close, or inconsistent watering. This section gives you the exact information for the most important crops.

WHEN TO PLANT — FROST DATE GUIDE

Find your last spring frost date (local weather service or ask neighbors).

Warm-season crops (corn, beans, squash, tomatoes): plant AFTER last frost.
Cool-season crops (kale, radish, peas, spinach): plant 4–6 WEEKS BEFORE last frost.

COMPLETE PLANTING REFERENCE

Crop	Start Seeds	Depth	Spacing	Days	Water Needs
Potatoes	Direct (chunks)	4"	12"	**70**	Medium
Sweet potatoes	Slips/cuttings	3"	12"	**90**	Low-Med
Corn	Direct	1"	12"	**100**	Medium
Beans (bush)	Direct	1"	4"	**55**	Medium
Beans (pole)	Direct	1"	6"	**60**	Medium
Squash (winter)	Direct or start	1"	24–36"	**90**	Medium
Pumpkin	Direct or start	1"	36"	**100**	Medium
Kale	Direct or start	1/4"	12"	**30**	Medium
Spinach	Direct	1/2"	6"	**40**	High
Radish	Direct	1/2"	2"	**25**	Medium
Sunflower	Direct	1"	12"	**80**	Low
Tomatoes	Start indoors	1/4"	24"	**75**	High
Garlic	Direct (cloves)	2"	6"	**240**	Low-Med
Peas	Direct	1"	4"	**60**	Medium
Carrots	Direct	1/4"	3"	**75**	Medium

WATERING GUIDE

Water deeply and less often

Deep watering encourages deep roots. Shallow daily watering creates weak plants. Aim for 1 inch per week. One deep watering is better than 7 light ones.

Water at soil level not leaves

Wet leaves cause fungal disease. Use drip irrigation, a watering can at the base, or bury a perforated bottle next to plants for deep slow release.

Morning watering is best

Morning watering lets leaves dry during the day. Evening watering leaves moisture on leaves overnight which promotes disease.

Mulch saves 50% of water

2–3 inches of straw, wood chips, or dry leaves around plants dramatically reduces evaporation. This is the single highest-impact thing you can do.

SEED SAVING

Why it matters:
Seeds from commercial packets last 1–3 years. Learning to save seeds from your own crops makes your food supply permanently self-sustaining — free seeds every year forever.

EASY TO SAVE

Tomatoes: Ferment seeds in water 3 days, rinse, dry fully.

Beans/Peas: Let pods dry completely on plant. Shell and store.

Squash/Pumpkin: Scoop seeds, rinse, dry 2 weeks on paper.

Sunflowers: Let head dry on plant, rub seeds out, dry further.

MEDIUM DIFFICULTY

Corn: Plant only one variety. Collect from center of field.

Peppers: Let fruit fully ripen to red/orange. Dry seeds 2 weeks.

Cucumber: Let one fruit go fully yellow. Ferment seeds like tomato.

DO NOT SAVE

Hybrids (F1): Seeds won't grow true to parent. Look for open-pollinated or heirloom.

Brassicas: Cross-pollinate easily. Difficult without isolation.

STORING SAVED SEEDS

- Dry completely — any moisture causes mold and death.
- Label with crop name, variety, and year saved.
- Store in paper envelopes inside sealed glass jars.
- Keep cool, dark, and dry — a basement or refrigerator.
- Most seeds viable 3–5 years if stored correctly.
- Test viability: germinate 10 seeds on damp paper towel.

FOOD PRESERVATION

ROOT CELLARING
Temperature: 32–40°F | Humidity: High

- Potatoes, carrots, beets, turnips, onions, garlic.
- Store in boxes of slightly damp sand or sawdust.
- Keep in coolest, darkest part of home or dig a pit.
- Inspect monthly and remove anything rotting.
- Properly stored: 6–8 months.

DRYING / DEHYDRATING
Works for: beans, corn, herbs, fruit, meat

- Slice food thin and evenly for consistent drying.
- Sun drying: 3–7 days in hot direct sun on screens.
- Oven drying: lowest setting (150°F), door cracked open.
- Food is ready when it snaps rather than bends.
- Store in airtight jars. Dried food lasts 1–10 years.

LACTO-FERMENTATION
Works for: cabbage, carrots, beans, cucumbers

- Requires only salt and water — no equipment.
- Shred or chop vegetables, mix with 2% salt by weight.
- Pack tightly in jar, press until brine covers vegetables.
- Leave at room temperature 3–7 days, then refrigerate.
- Preserves for months and adds beneficial probiotics.

SMOKING / SALT CURING
Works for: meat, fish

- Salt curing: pack meat in salt for 24–48 hours.
- Smoking: cold smoke below 90°F for 12–24 hours.
- Combined method lasts months without refrigeration.
- Require: salt supply and hardwood for smoking.
- Critical in areas without root cellar capability.

One garden feeds one family. Coordinated gardens feed an entire community.

The most efficient food production system is a coordinated community where each household specializes in different crops, shares knowledge, and pools resources. This eliminates duplication, increases variety, and ensures no single failure leaves anyone without food.

THE FIVE HOUSEHOLD FOOD NETWORK

HH 1 — CALORIE CROPS
Grows the staple calorie crops: potatoes, sweet potatoes, corn, and dried beans. Focus is on maximum calorie production per square foot. Maintains primary grain and legume seed bank for the network.

HH 2 — PROTEIN & FATS
Grows beans, peas, sunflowers, peanuts, and nuts. Raises chickens or rabbits if possible. Produces eggs and meat for the network. Maintains breeding stock and feed supply.

HH 3 — VEGETABLES & VITAMINS
Grows leafy greens, squash, root vegetables, tomatoes, and herbs. Ensures nutritional variety to prevent vitamin deficiencies. Maintains medicinal herb garden. Fastest crop production — feeds network daily.

HH 4 — PRESERVATION HUB
Specializes in food preservation: root cellar, drying, fermenting, and curing. Processes and stores surplus from all other households. Manages seed bank for the entire network. Critical role — prevents waste.

HH 5 — SOIL & WATER
Manages compost for all households. Maintains water collection and irrigation. Repairs and builds garden infrastructure. Trains others on soil health. Keeps records of what was planted, when, and yields achieved.

SEED SHARING & CROP ROTATION

ANNUAL SEED SHARING SYSTEM

- Each household saves double the seeds they need for next season.
- Surplus seeds go into community seed library at HH4.
- Any household can draw from library — no cost, just save in return.
- Label all seeds: crop, variety, year saved, original source.
- Test 10% of stored seeds each spring for viability.
- Heirloom and open-pollinated varieties only — no hybrids in community bank.

CROP ROTATION BASICS

Year 1 — LEGUMES
Beans, peas. Fix nitrogen in soil.

Year 2 — BRASSICAS
Cabbage, kale, broccoli. Use the nitrogen.

Year 3 — ROOT CROPS
Carrots, potatoes. Loosen and feed deep.

Year 4 — ALLIUMS
Onions, garlic. Clean pests and disease.

Never plant same crop family in same spot two years running.

Most crop problems are preventable. Know the signs early and act fast.

A pest or disease that goes untreated for a week can destroy an entire crop. Check your plants every day. Early intervention requires almost no resources. Late intervention may require replanting.

COMMON PROBLEMS AND ORGANIC SOLUTIONS

Aphids

SIGN: Tiny green/black/white clusters on stems and under leaves. Leave...

- Blast with strong water spray — removes most colonies instantly.
- Spray with diluted dish soap (1 tsp per litre of water).
- Plant marigolds nearby — natural repellent.
- Ladybugs eat aphids — encourage them by avoiding pesticides.

Slugs & Snails

SIGN: Irregular holes in leaves, slime trails visible at night.

- Set beer traps: shallow dish of beer sunk to ground level.
- Spread crushed eggshells or sharp grit around plants.
- Go out at night with a torch and manually remove them.
- Copper tape around bed edges — slugs won't cross it.

Blight (fungal)

SIGN: Brown/black spreading patches on leaves, often in wet conditions.

- Remove affected leaves immediately and destroy — do not compost.
- Improve air circulation by pruning and wider spacing.
- Avoid overhead watering — keep leaves dry.
- Spray diluted baking soda solution (1 tbsp per litre water) preventively.

Cabbage worms

SIGN: Holes in brassica leaves. Look for small green caterpillars on under...

- Hand pick caterpillars and eggs daily.
- Cover plants with fine mesh/row cover to exclude butterflies.
- Plant strongly scented herbs nearby: dill, mint, thyme.
- Bacillus thuringiensis (Bt) spray — safe biological control.

Nutrient deficiency

SIGN: Yellowing leaves, stunted growth, purple tints.

- Yellow leaves = nitrogen deficiency. Add compost or aged manure.
- Purple leaves = phosphorus deficiency. Add bone meal or wood ash.
- Brown leaf edges = potassium deficiency. Add wood ash or compost.
- General fix: top dress with 2 inches of compost around plant base.

Poor germination

SIGN: Seeds planted but few or none sprouting.

- Check soil temperature — most seeds need 60°F+ to germinate.
- Seeds planted too deep — most need no more than 2× their diameter.
- Old seeds lose viability — test before planting season.
- Keep soil consistently moist during germination — not wet, not dry.

PREVENTION IS EVERYTHING:

Healthy soil grows healthy plants. Healthy plants resist pests and disease. 80% of crop problems can be prevented by: using compost, ensuring good drainage, proper spacing for airflow, crop rotation, and daily inspection.

QUICK REFERENCE CARD

Print This Page — Keep It With Your Garden

Everything you need to remember, at a glance.

FASTEST CROPS TO HARVEST

Radish 25 days	Spinach 30 days	Kale 30 days	Lettuce 45 days	Beans 55 days
Peas 60 days	Beets 60 days	Squash 50 days	Potatoes 70 days	Corn 100 days

TOP CALORIE CROPS

Sunflower seeds	2,600 cal/lb
Peanuts	2,600 cal/lb
Dried corn	1,600 cal/lb
Dried beans	1,500 cal/lb
Potatoes	770 cal/lb

PEST QUICK DIAGNOSIS

- **Yellow leaves:** Add compost / nitrogen
- **Purple leaves:** Add wood ash
- **Holes in leaves:** Check for caterpillars
- **Slime trails:** Slug traps
- **Clusters on stems:** Aphids — soap spray

PRESERVATION METHODS AT A GLANCE

ROOT CELLAR	DRYING	FERMENTING	SALT CURING
Root veg 6–8 mo Cool, dark, humid	Beans/corn 10 yr Slice thin, full dry	Vegetables 6 mo 2% salt, submerged	Meat/fish months Pack in salt 24–48hr

DAILY FOOD MINIMUM PER PERSON

Calories	Protein	Fat	Carbohydrates
2,000+	50–60g	45–65g	225–325g

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"The soil is the source of life. Treat it well and it will feed generations."